APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/372,037	08/11/1999	KATSUHITO FUJIMOTO	826.1559/JDH	9963

21171	7590	03/18/2005

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER
GRANT II, JEROME

ART UNIT	PAPER NUMBER
2626	

DATE MAILED: 03/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

<table>
<tr>
<td rowspan="2">Office Action Summary</td>
<td>Application No.</td>
<td>Applicant(s)</td>
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<td>09/372,037</td>
<td>FUJIMOTO ET AL.</td>
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<td>Examiner</td>
<td>Art Unit</td>
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<td>Jerome Grant II</td>
<td>2626</td>
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4 and 6-40* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1, 4 and 6-38* is/are allowed.

6)☒ Claim(s) *2,3,39 and 40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

JEROME GRANT II
PRIMARY EXAMINER

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Detailed Action

1.

Claim 39 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 2. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim 40 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 3. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

2.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Claims 2, 3, 39 and 40 are rejected under 35 U.S.C. 102(b) as being anticipated

by Floeder.

With respect to claims 2, 3 , 39 and 40, Floeder teaches an apparatus shown by

figures 12-16 for recognizing a color document according to col. 1, lines 40-45 and 50-

56.. Floeder teaches a grey scale image extracting means (scanner and binarizer

according to col. 1, line 52 for extracting grey scale images input from an inputted color

document image (see col. 1, lines 40-45); and multi-code image binary coding means

(processor 10) for converting the gray scale image to a binary image by determining

whether each pixel corresponds to a background area or a plotting area and producing

values in which each pixel value is either a background or plotting area. See col. 4,

lines 14-20 ad col. 6, lines 1-15.

3.

Claims Allowed

Claims 1 and 4 are allowed for the reason the prior art does not

teach or suggest in claimed combination   partial area extracting means for

one or more partial areas I the gray scale image, partial image binary

coding means for executing a binary coding process for each of the partial

areas on the gray scale image and extracting a partial binary image, and

binary image combining means for combining the one or more partial

binary images and for constituting the binary image of the entire scale

image."

Claim 6 is allowed for the reason the prior art does not teach or suggest in

claimed combination, "... where said binary image combining means sets a pixel value

in the binary image to be outputted, corresponding to a pixel which is not contained in any of the partial areas in the gray scale image to a value of a background color. "

Claim 7 is allowed for the reason the prior art does not teach in claimed combination, "... where said binary image combining means assigns a corresponding pixel value in the partial binary image obtained from the partial area with top-priority which is determined based on a quantitative priority according to a predetermined criterion as a pixel value in the binary image to be outputted, corresponding to a pixel which is contained in one or more partial areas of the gray scale image.

Claim 9 is allowed for the reason the prior art does not teach or suggest in claimed combination, "... partial area extracting means for one or more partial areas in the gray scale image, partial image binary –coding means for executing a binary-coding process for each of the partial areas of the gray scale image and extracting a partial binary image; and binary image combining means for combining the one or more partial binary images and for constituting the binary image of the entire scale image."

Claim 10 is allowed for the reason the prior art does not teach or suggest in claimed combination, "... said multi-code image binary-coding means further comprises: partial area extracting means for one or more partial areas in the gray scale image, partial image binary-coding means for executing a binary-coding process for

each of the partial areas of the gray scale image and extracting a partial binary image; and binary image combining means for combining the one or more partial binary images and for constituting the binary image of the entire scale image and said partial area extracting means outputs one or more rectangular areas as the partial areas."

Claims 11-25 are allowed for the reason the prior art does not teach or suggest, "... partial image binary coding means for executing a binary coding process for each of the partial areas of the gray scale image and extracting a partial binary image; and binary image combining means for combining the one or more partial binary images and for constituting the binary image of the entire scale image and where said partial area extracting means extracts one or more partial areas using an edge strength image or edge direction image obtained by executing an edge extracting process for the gray scale image."

Claims 26 and 27 are allowed for the reason the prior art does not teach or suggest in claimed combination, "... partial area binary coding means for executing a binary coding process for each of the partial areas of the gray scale image and extracting a partial binary image; and binary image combining means for combining the one or more partial binary images and for constituting the binary image of the entire scale image and where said partial image binary coding means extracts the partial binary image by executing a binary coding process for a designated partial area of the gray scale image, based on a single threshold."

Claims 28-32 are allowed for the reason the prior art does not teach or suggest in claimed combination, "... partial area extracting means for one or more partial areas in the gray scale image, partial image binary coding means for executing a binary coding process for each of the partial areas of the gray scale image and extracting a partial binary image; and binary image combining means for combining the one or more partial binary images and for constituting the binary image of the entire scale image and where said partial image binary coding means roughly extracts a plotting area by executing a binary coding process for a designated partial area of the gray scale image, based on a single threshold, and extracts the partial binary image by executing a local binary coding process in which a variable threshold is obtained for each pixel in the plotting area."

Claims 33-37 are allowed for the reason the prior art does not teach or suggest in claimed combination, "... partial area extracting means or one or more partial areas in the gray scale image, partial image binary coding means for executing a binary coding process for each of the partial areas on the gray scale image and extracting a partial binary image; and binary image combining means for combining the one or more partial binary images and for constituting the binary image of the entire scale image, and where said partial image binary coding means calculates a gray scale partial image corresponding to a designated partial area by interpolating a pixel value of the gray scale image and executing a subpixel generating process which increases a number of

pixels of an image, and extracts the partial binary image by executing the binary coding

process for the gray scale partial image."

4.   **Examiner's Remarks**

The applicant's remarks have been considered however, the arguments do not place

the application in condition for allowance.

First, with respect to the objection of claims 39 and 40, applicant states that the

difference between claims 2 and 39, for example, is that one is a means plus function

and the other is not and that they are distinct on that basis. The examiner opines that a

grey scale image extraction means and a grey scale image extraction unit is not a

patentable distinction in that the means is the unit and the unit is the means. This

rejection is maintained.

Second, applicant argues the present invention is directed toward background/plotting

area determining occurs with the grey scale image while the reference of record

addresses conversion of grey scale to   before a processing algorithm..

Upon closer view, the examiner considers that no such distinguishing language or

features appears in either of the pending claims 2, 3, 39 and 40, and that applicant is

arguing limitations which are not supported in the claim. This argument is not

persuasive and the rejection to the claims is maintained.

5.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

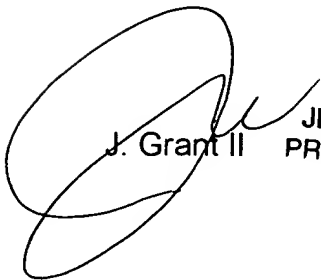than SIX MONTHS from the mailing date of this final action.

6.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jerome Grant II whose telephone number is 703-305-

4391. The examiner can normally be reached on Mon.-Fri. from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kimberly A Williams, can be reached on 703-305-4863. The fax phone

number for the organization where this application or proceeding is assigned is 703-

872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

J. Grant II   JEROME GRANT II
               PRIMARY EXAMINER